

## Listing of Claims

1. - 29. (cancelled)

30.(new) A system for measuring parameters of a structure, the system comprising

a plurality of strain gauges emplaceable on the structure,  
signal transmission apparatus associated with the plurality of strain gauges for transmitting signals therefrom indicative of measurements by the plurality of strain gauges to computer apparatus for processing signals from the strain gauges,

the plurality of strain gauges including at least three strain gauge apparatuses for providing axial strain measurements at each location of one of the at least three strain gauge apparatuses,

computer apparatus for receiving signals from the transmitting apparatus indicative of the measurements of the at least three strain gauge apparatuses and for determining, based on said measurements, bending moment of the structure at a location of a plane including the at least three strain gauge apparatuses,

temperature measurement apparatus for measuring temperature of the structure at the location of the plurality of strain gauges, and

wherein the computer apparatus is programmed to adjust said measurements for temperature changes indicated by the temperature measurement apparatus.

31. (new) The system of claim 30 wherein the computer apparatus is programmed to calculate internal pressure of the structure based on strain measurements from the plurality of strain gauges.

32. (new) The system of claim 30 wherein the computer apparatus is programmed to calculate bending direction of the structure at said location based on said measurements.

33. (new) The system of claim 31 wherein the computer apparatus determines bending moment in real time.

34. (new) The system of claim 33 wherein the computer apparatus is programmed to make a plurality of continuous determinations of bending moment in

Early and favorable reconsideration is respectfully requested.

Respectfully submitted,

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